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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,784	10/19/2001	Keld Lange	Q66664	6691

7590 01/13/2006

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EXAMINER	
BHATTACHARYA, SAM	
ART UNIT	**PAPER NUMBER**
2688	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/981,784	LANGE ET AL.	
	Examiner	Art Unit	
	Sam Bhattacharya	2688	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 19-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 19-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/8/05 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3, 6-13 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sriram (US 6,366,606) in view of Ozluturk et al. (US 6,366,607).

Regarding claims 1, 9 and 10, Sriram teaches a base station a radio operated telecommunications system with a receiver (col. 1, lines 31-35) for processing received information, and one or more digital signal processors 10 for performing symbol rate processing and a correlator co-processor 12 that performs at least parts of chip rate processing (col. 4, lines 36-41 and col. 5, lines 19-33 and 51-60).

Sriram fails to disclose that the symbol rate processing and chip rate processing is performed by a single processor. However, in an analogous art, Ozluturk discloses a receiver in which a signal processor 67 performs both symbol rate processing and chip rate processing. See FIG. 2, col. 4, lines 1-21 and col. 6, lines 25-37. Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the system of Sriram by performing both symbol rate and chip rate processing in a single processor, as taught by Ozluturk, to eliminate the unnecessary circuit components that previously performed the two kinds of processing, and thereby save space by making the receiver circuitry more compact.

Regarding claims 3, 13 and 21, Sriram fails to specifically teach the signal processor performing chip rate processing before symbol rate processing. However, Ozluturk discloses a system which performs chip rate processing before symbol rate processing. See col. 4, lines 15-21. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to perform chip rate processing before symbol rate processing, as taught by Ozluturk, so that the information is despread before it is decoded.

Regarding claim 6, Sriram teaches memory which can be suitable for the intermediate storage of the received information (col. 1, lines 45-50 and col. 2, lines 29 and 49-54).

Regarding claim 7, Sriram teaches despreading of the received information by a signal processor (col. 6, lines 34-35).

Regarding claim 8, Sriram teaches decoding of the received information (col. 5, lines 51-60).

Regarding claims 11 and 19, Sriram teaches that the telecommunications system is CDMA (col. 2, lines 18 and 60-67).

Regarding claim 12, Sriram inherently teaches a process for operating a radio-operated telecommunications system, wherein the information received by a base station or a mobile station is subjected to a symbol rate processing by means of a digital signal processor (col. 2, line

34) wherein at least part of the chip rate processing is likewise performed (col. 4, lines 36-41 and col. 5, lines 19-33, 51-60).

Regarding claim 20, Sriram teaches a digital signal processor including means for executing symbol rate processing and means for executing chip rate processing. See FIG. 2, col. 4, lines 36-41 and col. 5, lines 19-33 and 51-60.

Sriram fails to disclose means for switching over from the means for executing symbol rate processing to the means for executing chip rate processing. However, Ozluturk discloses switching over from symbol rate processing to chip rate processing. See col. 6, lines 25-37. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to switch over from symbol rate processing to chip rate processing as taught by Ozluturk so that the most effective processing can be achieved based on the kind of processing required at any one time.

4. Claims 2, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sriram in view of Ozluturk et al. and Warty (US 4,827,499).

Regarding claims 2 and 14, Sriram and Ozluturk fail to teach the signal processor performing task allocation for controlling the chip rate processing and the symbol rate processing. Warty teaches a call control of a distributed processing communications switching system that has processors performing task allocation (col. 5, lines 36-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Warty into that of Sriram and Ozluturk for the

obvious reason of being able to pick which function to operate for quicker processing because it decentralizes task functionality.

Regarding claim 16, Sriram fails to teach the distribution of the array or group of signal processors between the chip rate processing and the symbol rate processing is performed by task allocation. The limitations of the claim are rejected as the same reason set forth in claims 2 and 14 above, where it would have been obvious to incorporate the teaching of Warty into Sriram because it decentralizes task functionality.

5. Claims 4, 5, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sriram, Ozluturk and Warty as applied to claims 2 and 16 above, and further in view of Komara (US 6,161,024).

Regarding claim 4, Sriram fails to teach an array or group of digital signal processors provided. Komara teaches a redundant broadband multi-carrier base station for wireless communications with a group of digital signal processors (Fig. 1 and col. 2, lines 63-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Komara into that of Sriram for the obvious reason of having a plurality of processors to accommodate a plurality of users for faster processing and a backup structure for failure purposes.

Regarding claims 5 and 15, Sriram and Komara fail to teach chip rate processing and symbol rate processing distributed between sub-arrays or sub-groups of signal processors. However, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to distribute chip rate processing and symbol rate processing between sub-groups in order have quicker processing and to reduce complexity of the processors functions.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-6, with first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sb

George Eng

GEORGE ENG
SUPERVISORY PATENT EXAMINER